

between 2006 and 2012. **RESULTS:** Our findings indicate that in the assessed time period an average yearly amount of approximately €5.5 million (calculation based on yearly average EUR/HUF exchange rates) is spent on second generation antipsychotics, which are prescribed and purchased with reimbursement but finally not used by the patients due to early medication discontinuation. Based on our calculations, the average yearly treatment costs of antipsychotics increased from €612 (2006) to €974 (2012) per patient in the assessed time period. The analysis of the NHIF database resulted, that the average yearly expenditure on different antipsychotics, varied between €173 and €2420 per patient. **CONCLUSIONS:** All-cause medication discontinuation is a major concern in the treatment of schizophrenia both from a clinical and both from a health economic perspective. In order to ensure resources are spent cost-effectively, it is crucial to identify methods which can improve treatment continuation and adherence of schizophrenia patients in the future.

### PMH32

#### ADJUNCTIVE THERAPY WITH PREGABALIN IN GENERALIZED ANXIETY DISORDER PATIENTS WITH PARTIAL RESPONSE TO SSRI TREATMENT: A COST-CONSEQUENCES ANALYSIS IN MEDICAL PRACTICE IN SPAIN

Carrasco JL<sup>1</sup>, Olivares JM<sup>2</sup>, Alvarez E<sup>3</sup>, Pérez M<sup>4</sup>, López-Gómez V<sup>4</sup>, Rejas J<sup>5</sup>

<sup>1</sup>Department of Psychiatry, Hospital Clínico San Carlos, Madrid, Spain, <sup>2</sup>Hospital Meixoeiro, Complejo Hospitalario Universitario, Vigo, Spain, <sup>3</sup>Department of Psychiatry, Hospital de la Santa Creu i San Pau, Barcelona, Spain, <sup>4</sup>Pfizer S.L.U., Alcobendas, Madrid, Spain, <sup>5</sup>Pfizer S.L.U., Alcobendas/Madrid, Spain

**OBJECTIVES:** To compare the effect of adjunctive therapy with pregabalin versus usual care (UC) on health care costs and clinical and patients consequences in Generalized Anxiety Disorder (GAD) subjects with partial response (PR) to previous SSRI course in medical practice in Spain. **METHODS:** Post-hoc analysis of patients with PR to SSRI monotherapy enrolled in a prospective 6-month naturalistic study. PR was defined as a Clinical-Global-Impression scale score >3 and insufficient response with persistence of anxiety symptoms >16 in the Hamilton-Anxiety scale. Two groups (based on psychiatrist judgment) were analyzed 1) adjunctive therapy (AT) with pregabalin (150–600 mg/day) to existing therapy; or 2) usual care (switching to a different SSRI or adding another anxiolytic different than pregabalin). Costs estimation used year-2009 prices for GAD related health care resources utilization. Consequences were a health profile based on the combination of psychiatrist-based-measurements [HAM-A, CGI and Montgomery-Asberg-Depression-Rating (MADRS) scales], and patient-reported-outcomes [sleep (MOS-sleep), disability (WHO-DAAS II) and quality-of-life/quality-adjusted-life-year gain (EQ-5D)]. Changes in both health care costs and scale scores were compared separately at end-of-trial visit by a general-linear-model with covariates. **RESULTS:** Four-hundred-eighty-six newly prescribed pregabalin and 239 UC GAD patients [mean (SD) HAM-A 26.7 (6.9) and CGI 4.1 (0.5)] were analyzed. Adding pregabalin was associated with significantly higher mean (95% CI) score reductions vs. UC in HAM-A [-14.9(-15.6;-14.2) vs. -11.2(-12.2;-10.2), p<0.001] and MADRS [-11.6(-12.2;-10.9) vs. -7.8(-8.7;-6.8), p<0.001]. Changes in all patient-reported-outcomes favored significantly patients receiving pregabalin, including QALY gain: 0.13(0.12;0.14) vs. 0.09(0.07;0.10), p<0.001. Health care costs were significantly reduced in both cohorts yielding similar 6-month costs; €1543 (1375;1711) UC and €1497 (1380;1614) pregabalin, p=0.661. The effect of sex on costs and consequences were negligible. **CONCLUSIONS:** In medical practice, GAD patients with PR to SSRI experienced greater consequences improvements with adjunctive therapy with pregabalin versus UC, without increasing health care cost. The effect of pregabalin was independent of patient gender.

### PMH33

#### COST-EFFECTIVENESS OF ANTIDEPRESSANT AFTER 24 MONTHS OF TREATMENT BASED ON DISCRETE EVENT SIMULATION MODELING (DESM): AGOMELATINE VERSUS MATRIX COMPARATOR OF ESCITALOPRAM, SERTRALINE AND VENLAFAXINE IN A THAI SETTING

Satra T, Ngamthipwattana T

Faculty of Medicine, Siriraj Hospital, Mahidol University, Bangkok, Thailand

**OBJECTIVES:** To compare cost-effectiveness of agomelatine versus an escitalopram-sertraline-venlafaxine matrix comparator. **METHODS:** A DESM describes course of depressive disorders with acute, continuation, and maintenance treatment of depression in Thai setting for 24 months. A sample of 250,000 patients with 100 simulations were assumed with Exigo® model. Antidepressants were analyzed for treatment of episodes(12–24 weeks), continuation phase(6–9 months), maintenance phase over 2 years follow-up. Data inputs included Thai data on disease parameters; Cost included antidepressants, drugs for insomnia, sexual side-effects, cognitive behavioral therapy(CBT), electroconvulsive therapy(ECT) and mean cost of psychiatric visits. Impact measures were derived from a systemic review. Results were presented as cost(Thai-Baht currency-THB) per Life-Year-Remission(LYR) averted and Quality-Adjusted Life Year(QALY) compared with branded antidepressants in the matrix comparator (46%escitalopram, 33%sertraline, 21%venlafaxine). Model simulation initiated with either agomelatine 25mg or comparators(escitalopram10mg,sertraline100mg,venlafaxine 150mg by random selection). Relapse cases required dose increase for each antidepressant, addition of CBT and ECT. Data on impact of treatment on quality of life in patients free from relapse, sexual side effects, insomnia were taken from cochrane database. **RESULTS:** During 24 months, patients treated with agomelatine cost 15,814.2THB and 20,232.0THB per LYR and QALY gains, whereas with comparator cost 17,999.6THB and 23,431.7THB per LYR and QALY gains. As a result, the incremental cost-effectiveness ratio(ICER) shows that agomelatine is the most cost-effective antidepressant for episodic treatment with/without continuation or maintenance phase, its cost being lower than comparator by 153,283 and 83,645 THB per LYR and QALY. These results were robust, probability sensitivity analysis suggested that agomelatine was effective for a willingness-to-pay of 300,000THB,95%CI of -146,120.4 to -179,651.0THB per QALY, with probability of >0.90. **CONCLUSIONS:** Based on the model, agomelatine is the most cost-effective

treatment option as compared with escitalopram,sertraline, and venlafaxine in a matrix comparator, with regard to side effects especially sexual dysfunction, agomelatine should be considered as the most cost-effective option for treatment of depression.

### PMH34

#### COST-EFFECTIVENESS OF PALIPERIDONE PALMITATE FOR THE TREATMENT OF SCHIZOPHRENIA IN GERMANY

Zeidler J<sup>1</sup>, Mahlich JC<sup>2</sup>, Greiner W<sup>3</sup>, Heres S<sup>4</sup>

<sup>1</sup>Leibniz University Hannover, Hannover, Germany, <sup>2</sup>Janssen-Pharmaceutical companies of Johnson & Johnson, Neuss, Germany, <sup>3</sup>School of Public Health, Bielefeld University, Bielefeld, Germany, <sup>4</sup>Technical University of Munich, Munich, Germany

**OBJECTIVES:** Treatment with antipsychotic medication is an important element of relapse prevention in the management of schizophrenia and can reduce inpatient stays. Recently, the long-acting atypical antipsychotic paliperidone long-acting injectable (PLAI), a once-monthly LAI antipsychotic, was approved for treatment of schizophrenia in Germany. The study aims at estimating, based on a previously published model, the cost-effectiveness of paliperidone long-acting injections compared to other common antipsychotic treatment strategies in patients diagnosed with schizophrenia in Germany. **METHODS:** A Markov decision analytic model was adapted to the German health care system. The model considers the cost-effectiveness for PLAI as a maintenance treatment for patients with schizophrenia from the payer perspective. The patients transition between eight health states on a monthly basis over a 5-year time horizon. As therapeutic strategies PLAI, quetiapine, risperidone long-acting injections (RLAI), oral olanzapine, oral risperidone, zuclopenthixol decanoate, olanzapine long-acting injections (OLAI), oral typical and oral atypical were compared. Probability of relapse, level of adherence, side effects and treatment discontinuation were derived from the Swedish original model. Input factors regarding resource use and costs were estimated and adjusted for the German health care system. A probabilistic sensitivity analyses using cost-effectiveness scatter plots was performed to visualize the robustness of the results. **RESULTS:** In base case scenario PLAI is superior to RLAI in gained quality adjusted life years (QALYs) and avoided relapses. Relative to all other treatment strategies PLAI is more effective with regard to gained QALYs and avoided relapses but results in higher treatment costs over a 5-year horizon in base case scenario. The results were tested in probabilistic sensitivity analyses. **CONCLUSIONS:** PLAI dominates RLAI and compared to the other treatment strategies PLAI has shown to be more effective but results in higher costs in base case scenario.

### PMH35

#### COST EFFECTIVENESS ANALYSIS FOR THE USE OF EXTENDED RELEASE QUETIAPINE AS ADJUNCTIVE THERAPY IN MEXICAN ADULT PATIENTS WITH MAJOR DEPRESSIVE DISORDER NON-RESPONDERS TO ANTIDEPRESSANT TREATMENT

Polanco AC<sup>1</sup>, Ascencio JS<sup>1</sup>, Salazar A<sup>2</sup>, González LA<sup>2</sup>, Pizarro M<sup>3</sup>, Soto H<sup>2</sup>, Characheo L<sup>2</sup>

<sup>1</sup>AstraZeneca, México, D. F., Mexico, <sup>2</sup>Health Solutions Consulting, D. F., Mexico, <sup>3</sup>Hospital Infantil de Mexico Federico Gomez, Mexico City, Mexico

Depression is present in 10% of patients attending primary care services and is generally not identified. In Mexico it is estimated a prevalence of 12% to 20% among adults between 18–65 years old. Up to 75% of patients treated with a selective inhibitor of serotonin reuptake (SSRIs) are not responding adequately. Atypical antipsychotics are an effective alternative for these patients. **OBJECTIVES:** To evaluate the cost-effectiveness (CE) of extended release (XR) quetiapine as adjunctive therapy (AT) in patients with major depressive disorder (MDD) that doesn't respond to antidepressant treatment (AD), compared with other antipsychotics listed in the Mexican Formulary (aripiprazole and olanzapine). **METHODS:** A Markov model was developed to perform and incremental analysis with weekly cycles during eight weeks time horizon, based on the meta-analysis developed by Komossa et al in 2010. Health states: remission, relapse and discontinuation of treatment. The model estimates the remission time gained (RG) by each AT alternative. The analysis was done from society perspective, considered direct costs, and reported in 2013 US dollars. **RESULTS:** Patients with AT with quetiapine XR had 1.83 weeks of RG, while patients under aripiprazole and olanzapine obtained 1.5 and 1.72 weeks of RG, respectively. Quetiapine XR compared to olanzapine generated an additional cost per patient of \$94.70, with additional RG of 0.11 weeks and ICER of \$881.73. Quetiapine XR dominated extended to aripiprazole. Robustness of results were confirmed by additional deterministic and probabilistic sensitivity analysis. **CONCLUSIONS:** The use of quetiapine XR as adjuvant treatment for non-responders patients is a cost-effective compared to aripiprazole and olanzapine, and could be considered as an option in an institutional setting.

### PMH36

#### HOW SHOULD AN ANTIDEPRESSANT WITH REDUCED RISK OF SEXUAL DYSFUNCTION BE POSITIONED IN TREATMENT STRATEGIES FOR PATIENTS WITH MAJOR DEPRESSIVE DISORDER?

Masseti M<sup>1</sup>, Vataire AL<sup>2</sup>, Cristeau O<sup>2</sup>, Toumi M<sup>3</sup>, Aballea S<sup>4</sup>

<sup>1</sup>University Paris-Est Creteil Val de Marne, Paris, France, <sup>2</sup>Creativ-Ceutical, PARIS, France,

<sup>3</sup>University Claude Bernard Lyon 1, Lyon, France, <sup>4</sup>Creativ-Ceutical, Paris, France

**OBJECTIVES:** Sexual dysfunctions (SD) is a common adverse event of antidepressants. It has a lasting impact on quality of life and is associated with an increased risk of early treatment discontinuation. Using an open-source Discrete Event Simulation model (<https://open-model-mdd.org/>), we performed a cost-effectiveness analysis comparing alternative sequences of treatments, to determine whether an antidepressant with moderate efficacy and reduced risk of SD should be positioned before or after a treatment with high efficacy and average risk of SD. **METHODS:** The model used was designed to simulate costs and QALYs in cohorts of patients with major depressive disorder (MDD), under alternative treatment strategies over 5 years. Each strategy consisted of up to 4 lines of treatment, with possibility to switch to different drugs when a patient experienced adverse events or lack of efficacy. We

compared two strategies based on hypothetical treatments: under strategy A, an antidepressant with high response rate/high SD rate was prescribed in first-line and an antidepressant with moderate response rate/low SD rate available in second-line; under strategy B, the positions of these two drugs were reversed. Efficacy and safety parameters were obtained from a meta-analysis and other parameters, from the literature. Costs were estimated for the UK, from payer perspective. **RESULTS:** The numbers of QALYs were estimated at 3.660 QALYs (SE=0.013) and 3.649 (SE=0.012) under strategies A and B respectively. Costs were estimated at £3,894 (SE=60) and £3,918 (SE=61). **CONCLUSIONS:** Positioning an antidepressant with moderate efficacy and reduced risk of SD before or after a treatment with high efficacy and average risk of SD had no significant impact in terms of average costs and QALYs. Thus, differences in efficacy and tolerability can offset each other. In practice, the choice of first-line treatment should take account of patient preferences.

#### PMH37

##### COST-EFFECTIVENESS OF INJECTABLE ATYPICAL LONG-ACTING ANTIPSYCHOTICS FOR CHRONIC SCHIZOPHRENIA IN POLAND

Hemels M<sup>1</sup>, Einarson TR<sup>2</sup>, Zilbershtein R<sup>3</sup>, Schubert A<sup>4</sup>, Skrzekowska-Baran I<sup>5</sup>, Van Impe K<sup>6</sup>

<sup>1</sup>Janssen Cilag, Birkerød, Denmark, <sup>2</sup>University of Toronto, Toronto, ON, Canada, <sup>3</sup>PIVINA Consulting Inc., Mississauga, ON, Canada, <sup>4</sup>Janssen Cilag Poland, Warszawa, Poland, <sup>5</sup>Janssen-Cilag Polska, Warszawa, Poland, <sup>6</sup>Janssen Cilag Germany, Neuss, Germany

**OBJECTIVES:** To determine the cost-effectiveness of paliperidone palmitate (PP-LAI; paliperidone long-acting injectable), a new once-monthly long-acting antipsychotic therapy, compared with risperidone long-acting injectable (RLAI) administered biweekly for treating chronic schizophrenia in Poland from the National Health Fund (NHF) perspective. **METHODS:** We adapted a 1-year decision tree model to the Polish health care system with literature-derived data (e.g., length of stay in hospital, treatment patterns, resource utilization) and clinical expert inputs. Costs in 2012 euros were obtained from published sources or in case of non-reimbursed drug price, directly from producer. Drugs compared were PP-LAI, a new treatment option, and RLAI, the established treatment for Polish patients. Clinical rates were derived from published trials. Model outputs included expected cost/patient as well as rates of hospitalization, emergency room visits, days free of symptoms, and quality-adjusted life-years (QALYs). One-way sensitivity analyses were applied to major inputs. As well, all inputs were varied simultaneously in probabilistic sensitivity analyses using 10,000 iterations. **RESULTS:** Despite its higher acquisition cost, PP-LAI had a lower expected cost per patient treated when the benefits are included in the estimation model. PP-LAI was associated with 0.824 QALYs, 323 days with stable disease and 44.6% hospitalization. RIS-LAI had 0.817 QALY, 317 stable days and 51.3% hospitalizations. PP-LAI dominated RIS-LAI in the base case and in 55.0% of 10,000 simulations, and was cost-effective in 76.6%. However, cost-effectiveness was sensitive; it was lost with modest increases for PP-LAI or decreases for comparison drugs with respect to drug prices, relapse rates and adherence rates. Because it is injected monthly as opposed to biweekly, it saves caregiver time. **CONCLUSIONS:** From the viewpoint of the National Health Fund of Poland, as compared with RLAI, PP-LAI is a cost-effective drug that has the potential to reduce health care costs.

#### PMH38

##### MOOD STABILIZERS AND ATYPICAL ANTIPSYCHOTICS IN MAINTENANCE THERAPY FOR BIPOLAR DISORDER: A COST-EFFECTIVENESS ANALYSIS

Zimmermann IR<sup>1</sup>, Kiyomoto HD<sup>2</sup>, Alexandre RF<sup>2</sup>, Nobre MRC<sup>3</sup>, Diaz MDM<sup>4</sup>

<sup>1</sup>Universidade de Brasília, Brasília, Brazil, <sup>2</sup>Ministry of Health, Brasília, Brazil, <sup>3</sup>INCOR - HCFMUSP, Sao Paulo, Brazil, <sup>4</sup>Universidade de São Paulo, São Paulo, Brazil

**OBJECTIVES:** To evaluate the cost-effectiveness of using a combination of atypical antipsychotic agents and mood stabilizers in maintenance treatment of bipolar disorder in Brazil. **METHODS:** Analyzing cost-effectiveness, taking direct costs, from the perspective of Brazil's Ministry of Health and its public health system (local acronym SUS), using a Markov model with transitions between possible states: euthymia, mania, depression, discontinuation and death. Efficacy data to populate the model were extracted from clinical trials and prospective cohort studies while direct cost data came from the public health system's databases (current values of 2012, exchange rate: US\$ 1 = R\$ 2.21). For a hypothetical cohort of 2000 euthymic individuals aged 40, maintenance therapy costs and outcomes were simulated over quarterly cycles through a timeframe that reached an effectiveness of <1 day in remission, for up to 30 years. Discount rates and half-cycle correction were applied, also, sensitivity analyses were run. **RESULTS:** The available efficacy data enabled the analysis to include only a combination with quetiapine. After twelve years (48 cycles) tracking the hypothetical cohort, there were 512 acute episodes (285 depression and 227 mania) for monotherapy against 306 (166 depression and 139 mania) for the quetiapine combination. The incremental cost-effectiveness ratio (ICER) for the quetiapine combination therapy was US\$ 565.64 per additional month in remission. The sensitivity analysis with all variables demonstrated the model's robustness, while dosage and quetiapine-price variations had most impact, showing an ICER ranging from US\$ 381.88 to US\$ 811.24 per additional month in remission. **CONCLUSIONS:** Maintaining the euthymia in bipolar disorder has a clinical relevance, especially, because of its impact on functional capacity in this population. In this context, in specific populations, the ICER shown may justify the use of the therapeutic strategy presented here. This reimbursement by public systems should also consider its budget impact.

#### PMH39

##### PATIENT-LEVEL MARKOV MODEL TO ASSESS ECONOMIC IMPACT OF NEW ANTIPSYCHOTICS INTRODUCTION IN SCHIZOPHRENIA

Millier A<sup>1</sup>, Vimont A<sup>1</sup>, Cadi-Soussi N<sup>2</sup>, Murthy V<sup>3</sup>, Toumi M<sup>4</sup>

<sup>1</sup>Creative-Ceutical, Paris, France, <sup>2</sup>Takeda Pharmaceuticals International GmbH, Glattbrugg-Opfikon (Zürich), Switzerland, <sup>3</sup>Takeda Global R&D Europe, London, UK, <sup>4</sup>University Claude Bernard Lyon 1, Lyon, France

**OBJECTIVES:** Antipsychotic treatments can cause several side effects, such as weight gain, metabolic syndrome, which could lead to cardiovascular complica-

tions (CVC). A number of models are available for the evaluation of the economic impact of antipsychotics in schizophrenia, but few of them properly consider metabolic syndrome and associated complications. The objective of this study was to build a new model to reflect the real patient therapeutic management of patients with schizophrenia. **METHODS:** An expert meeting was set up to validate the design of the model, and to list all outcomes that should be included in the model structure. The model was programmed in Excel 2010, with VBA coding. **RESULTS:** The expert meeting validated the premise that the aim of the treatment is to prevent relapses, affecting patients' quality of life and generating substantial costs. A patient-level Markov model structure was used, to simulate a cohort of patients with schizophrenia over lifetime, with 6-month cycles. Five lines of treatments are considered in the model. With up to 3 comparators in the first cycle, it models patients' treatment adjustment, and provides the flexibility to specify at any line of treatment a specific distribution of antipsychotics. The model considers treatment response, associated side effects (weight gain, sexual dysfunction, EPS and sedation), diabetes diagnosis and CVC (coronary heart disease and stroke). Non-response and compliance (based on side effects) drive relapse and hospitalization. Each relapse is assumed to require a treatment switch. Patients are also allowed to escape from the health care system, or to die, due to natural death, suicide or CVC-related death. Finally, extensive deterministic and probabilistic sensitivity analyses are also implemented. **CONCLUSIONS:** This new economic model allows taking into account all key features of schizophrenia, in a transparent way.

#### PMH40

##### COST-EFFECTIVENESS OF ASENAPINE VERSUS ATYPICAL ANTIPSYCHOTICS USED IN TURKEY IN THE TREATMENT OF SCHIZOPHRENIA

Pala M<sup>1</sup>, Özdemir S<sup>1</sup>, Ozdemir O<sup>2</sup>

<sup>1</sup>Lundbeck, Istanbul, Turkey, <sup>2</sup>Yorum Consultancy Ltd., Istanbul, Turkey

**OBJECTIVES:** Asenapine is a new atypical antipsychotic approved in Turkey for the treatment of schizophrenia and bipolar I disorder. Asenapine has demonstrated comparable efficacy over olanzapine in controlling both positive and negative symptoms of schizophrenia in the long-term. However, unlike olanzapine, asenapine is associated with a favorable metabolic profile as well as with a minimal weight gain. Post-hoc analyses of a clinical study vs. olanzapine illustrated higher incidence of developing metabolic syndrome (MetS) with olanzapine than with asenapine after 52 weeks of treatment. The aim of this study is to assess the cost-effectiveness of asenapine in schizophrenia compared with the most widely used atypical antipsychotics in Turkey with a focus on the long-term consequences of MetS which increases the risk of diabetes and cardiovascular diseases (CVD). **METHODS:** Perspective of National Pharmaceutical Reimbursement Authority was applied and life expectancy horizon was adopted. Annual risks of metabolic syndrome were derived from randomized clinical studies of asenapine and indirect comparison of other atypical antipsychotics vs. olanzapine. Risks of developing diabetes and CVD were based on published risk models. Treatment costs associated with metabolic consequences as well as cost of atypical antipsychotics were derived from local sources. Number of diabetes and CVD avoided is used as effectiveness measure in the model. **RESULTS:** Asenapine dominates (more effective and less expensive) all atypical antipsychotics in the treatment of schizophrenia. Compared to olanzapine, quetiapine, aripiprazole, risperidone and paliperidone (all genericized except paliperidone), asenapine was associated with incremental total costs of 1908 TL, 1298 TL, 314 TL, 841 TL and 1958 TL; and associated with incremental total number of diabetes & CVD avoided of 0.046, 0.029, 0.001, 0.028 and 0.028 respectively. **CONCLUSIONS:** The lower incidence of developing MetS associated with asenapine compared to olanzapine and other atypicals is associated with lower treatment costs and lower incidence of diabetes and CVD in Turkey.

#### PMH41

##### COST-EFFECTIVENESS OF ASENAPINE VERSUS ATYPICAL ANTIPSYCHOTICS USED IN TURKEY IN THE TREATMENT OF BIPOLAR I DISORDER

Pala M<sup>1</sup>, Özdemir S<sup>1</sup>, Ozdemir O<sup>2</sup>

<sup>1</sup>Lundbeck, Istanbul, Turkey, <sup>2</sup>Yorum Consultancy Ltd., Istanbul, Turkey

**OBJECTIVES:** Asenapine is a new atypical antipsychotic approved in Turkey for the treatment of bipolar I disorder (BD-I) and schizophrenia. Asenapine has demonstrated comparable antimanic efficacy over olanzapine in a head-to-head study. However, unlike olanzapine, asenapine is associated with a favorable metabolic profile as well as with a minimal weight gain. Post-hoc analyses of a clinical study vs. olanzapine illustrated higher incidence of developing metabolic syndrome (MetS) with olanzapine than with asenapine after 52 weeks of treatment. The aim of this study is to assess the cost-effectiveness of asenapine in the treatment of BD-I compared with the most widely used atypical antipsychotics with a focus on the long-term consequences of MetS which increases the risk of diabetes and cardiovascular diseases (CVD). **METHODS:** Perspective of National Pharmaceutical Reimbursement Authority was applied and life expectancy horizon was adopted. Risks of metabolic syndrome after 52 weeks of treatment were derived from randomized clinical studies of asenapine and indirect comparison of other atypical antipsychotics vs. olanzapine. Risks of developing diabetes and CVD were based on published risk models. Treatment costs associated with metabolic consequences as well as cost of atypical antipsychotics were derived from local sources. Number of diabetes and CVD avoided is used as effectiveness measure in the model. **RESULTS:** Asenapine dominates (more effective and less expensive) all atypical antipsychotics in the treatment of BD-I. Compared to olanzapine, quetiapine, aripiprazole, risperidone and paliperidone (all genericized), asenapine was associated with incremental total costs of 2418 TL, 1786 TL, 804 TL and 877 TL; and associated with incremental total number of diabetes & CVD avoided of 0.054, 0.038, 0.010 and 0.037 respectively. **CONCLUSIONS:** The lower incidence of developing MetS associated with asenapine compared to olanzapine and other atypicals is associated with lower treatment costs and lower incidence of diabetes and CVD in Turkey.